METHOD FOR MAKING A RADIO FREQUENCY COMPONENT AND COMPONENT PRODUCED THEREBY

Abstract of the Disclosure

A method for making a radio frequency (RF) component includes forming a dielectric layer on a semiconductor substrate and forming and patterning a conductive layer on the dielectric layer to define the RF component. The dielectric layer may include SiN, the conductive layer may include aluminum, and the semiconductor substrate may include silicon, for example. At least one opening may be formed through the RF component at least to the semiconductor substrate. Moreover, the at least one opening may either extend into the semiconductor substrate or substantially terminate at a surface of the semiconductor substrate. The RF component may then be released from the semiconductor substrate by exposing the semiconductor substrate to an etchant passing through the at least one opening to the semiconductor substrate. Releasing the RF component may include exposing the semiconductor substrate to a dry etchant, such as XeF_2, for example.